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June 1, 1917

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The **AMATEUR PHOTOGRAPHER'S WEEKLY**



CLEVELAND, OHIO.

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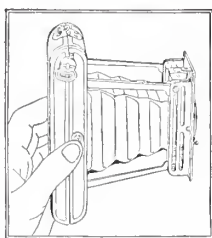
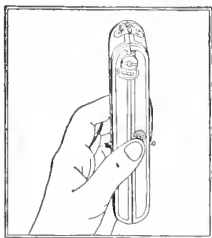
Vol.
10

THE JOURNAL THAT TEACHES PHOTOGRAPHY

No.
256

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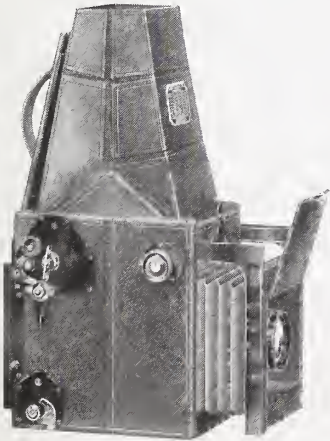


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THE AMATEUR PHOTOGRAPHER'S WEEKLY

DESIGNED TO CREATE AND FOSTER A DESIRE FOR
PICTURE MAKING WITH THE CAMERA

WITH WHICH ARE INCORPORATED "PHOTOISMS" AND "THE PROFESSIONAL AND AMATEUR PHOTOGRAPHER"
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CHAS. L. ABEL, EDITOR

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Vol. X

FRIDAY, JUNE 1, 1917

No. 256

DOING YOUR BIT



THE President has signed the military bill which will call for close to two million men to take up arms during the next year or so. Already thousands of young men are in camp and the removal from our midst of countless thousands more of our young men will soon take place. Of course, there are going to be any number of amateur photographers drawn along with the rest and small chance they will have, for the present at least, to practice their hobby. But there is going to be a big chance for those amateurs who stay at home to do their bit.

Over in Great Britain there has been a movement, ever since the war started, to keep those at the front in touch with their friends and their homes by means of photographs, made by the amateurs who stay at home. These little snap-shots of scenes dear to those who have gone away are the work of love. More than that, these little snap-shots are cherished and looked for by the recipients, many of whom have no other means of being kept in touch with their folks at home.

This movement is fostered by what is called the Snap-shots from Home League and covers all of Great Britain. Very probably something similar is being done in France.

Here, then, is an opportunity for every amateur to do his or her share in helping to spread a little pleasure among the brave boys who will have to train for many weary months and then, as seems likely, will have to leave our shores for foreign service.

A Snap-shots from Home League looks to us as something to be started right now. Possibly some Central Bureau can be established for the distribution to the right quarters for the photographs sent in from all sections of

the country. In Great Britain, the distribution takes place, we believe, through the headquarters bureau of the Y. M. C. A., which is looking after the welfare of the boys at the front. It may be the American Y. M. C. A. will undertake to co-operate in the matter.

The idea is that amateurs should find out each in their own localities what boys have enlisted and in what camps they are being trained or to what units of the service they may be drafted. Little pictures of these boys' homes, snap-shots of their folks and friends, of local occurrences—not mere landscapes—these will be treasured and it will be a work well worth the undertaking by every one who owns a camera.

Just think this thing over and write us your ideas and whether you will enlist in the Snap-shots from Home League. We are working on the plans and will soon announce what we find can be done in the matter.

MAKING WOOD WATERPROOF

When a small piece of woodwork for some repair or addition to our photographic kit is made, it is often necessary to make it waterproof. A very good way to do this cheaply and simply is to obtain a small quantity of orange shellac and dissolve it in a wide-mouthed bottle, with wood alcohol, until it is of the consistency of thick cream. The wood to be treated is given a coat of the solution and allowed to dry till quite hard; it is then given a second coat, and so on with a third or a fourth, if thought necessary, and it will be found to have a smooth and water-resisting surface.

THE COVER PICTURE THIS WEEK

"Soap Box Orator"

By J. Daniels, 2220 Adams Place, New York
Data: V. P. K., F.7.7; 1/25 sec; F.16
stop; Rytol developer; P. M. C. paper; Post
card size 20c.

THIS
WEEK'S
QUESTION



We will give \$1.00 in materials for the best answer sent in to this question within two weeks from date of issue. Answer will be published in earliest issue after contest closes. Address all replies to Question Editor.

THIS WEEK'S QUESTION No. 173

What is meant by a print having a "cold" or a "warm" tone?

LAST WEEK'S QUESTION No. 172

What is "brush" development? When is it used? Why?

WORK-ROOM HINTS



LEANING UP.—Do this on a common-sense system, e. g., sweep the walls and ceiling with a soft brush, and let the dust so disturbed have twelve hours to settle. Those minute, slowly falling dust particles are our chief enemy, because their small size leads us to ignore them. But they are quite big enough to be a nuisance when they settle down on and cling to a half-dry negative. Do not use a dry duster for the bottle shelves. A damp sponge or a dipped and well squeezed cloth is preferable. The use of a dry brush or duster merely shifts the dust from one place to another; the half-wet sponge licks it up. For the floor use a damp mop, or a damp cloth fastened over a broom.

BOTTLES.—Better to send the unknown contents of a bottle down the sink than risk spoiling good plates or paper with it. Do not wait for labels to drop off; give the lot an inspection every three or six months, and replace any which are becoming illegible. Don't wait till this has happened.

LABELS ON BOTTLES CONTAINING SOLUTION.—Place the label in such a position that you can indicate by an arrow point on the label just how far up in the bottle the stock solution comes when making up a fresh lot.

STORE BOXES.—Not much good having a thing if you can't get at it when you want it. Large, legibly written labels save a lot of needless memory fag. Don't throw away empty boxes (e. g., collar boxes, cigar boxes, tobacco tins, etc.) until you are quite sure that they cannot be used for stores of string, corks, old negatives for lantern-slide covers, packages of chemicals which may safely be kept in paper if no bottle is available.

WASTE BOX.—Do not throw spent matches, plate-box wrappers, bits of string, or anything else (not even cigarette ends) on the floor, but in the waste box (a large-size biscuit tin is just the size and shape). Everything on the floor makes for dust, and dust is the photographer's enemy.

WAIT A MINUTE.—Don't be in too big a hurry about throwing things away. If space permitted, one could fill a page with notes of odds and ends which from time to time have come in handy for all sorts of useful little things, which have cost nothing, and yet had they been lacking, one would not have felt justified in buying something to take their places. Here are one or two which catch the eye at the moment:

SECONDS PENDULUM.—A little over a yard of fine string, the bob of an old clock, a long bit of brass chain. This clinks against the rim of a half-pound tobacco-box lid every second swing. The pendulum hangs from a nail in the wall. The pendulum is forty inches long.

COTTON-BATTING BOTTLE.—This bottle contained caustic potash solution. The stopper being fixed resisted "firmly but gently" every persuasive invitation to move it. It was tapped off at the neck. The shoulder of the bottle was cut with a file scratch and hot wire. The sharp edge taken off with a hard pebble. It now stands on the sink shelf, and holds cotton batting with which to swab the surface of a negative or use as a quick filter.

TOOTHBRUSH BONE HANDLE.—Filed down to make a finger-nail shaped end, which acts admirably as a plate lifter.

THIS WEEK'S PRIZE WINNERS

Weekly Competition No. 247:

Third: Class A, K. D. Ganaway, 1221 Lake Shore Drive, Chicago, Ill.

Weekly Question No. 169:

Arthur Fruwirth, 54 Hart St., Brooklyn, N. Y.

❧ ❧ SKETCH BOOK LEAVES ❧ ❧

THE POCKET CAMERA

By ARTHUR H. FARROM



NE always wants a camera most when one has left it home. How often have we heard it said, "I wish I had my camera with me today." Well, there is a remedy. Obtain one of the so-called Vest Pocket Cameras and get the habit of carrying it with you every day. Take it to business with you—oftentimes you see something at noon-time you would like to photograph; take it with you when you go for a ride in your car; take it with you when you go walking. The cost of operation is so trifling that you can often afford to risk a plate or film on the chance of getting a picture worth while.

I don't know why the mak-

larger size. This size is ideal for making lantern slides by contact with a minimum of trouble. You will be surprised what excellent slides you can make from these little negatives. Contact prints are rather small for the album and every good negative should be enlarged to at least postcard size. Many negatives will stand enlarging up to 8 x 10, especially where wheather conditions will permit the use of one of the stops.

The question will naturally arise as to the desirability of using plates or films. Both have their advantages. Films are light in weight, can be obtained almost anywhere, are simple to change—but you have to wait until a roll is exposed before you can start developing. With plates you can develop at any time one or more exposures. Plate cameras are not usually as compact as film cameras or as easy to manipulate. Several dozen films may be carried with less annoyance



ers call these little instruments vest pocket cameras—you certainly cannot get them into the pocket of your vest and even if you could they would not feel very comfortable. But they go easily into your coat pocket and can be reached at a moment's notice. There is now a variety of makes on the market at prices to meet everybody's pocket book. Very often a second-hand one will be found just as satisfactory as a new one. For summer work it is surprising what good little pictures can be obtained with a single lens type—but get the best lens you can afford, as many occasions will arise where the anastigmat is a necessity.

Armed with one of these astonishingly compact little instruments one has the wherewithal for taking pictures whenever a likely subject presents itself. Study your camera's capabilities and its limitations—practice will make you proficient in its use. Perhaps the most popular models are those taking pictures $1\frac{1}{2} \times 2\frac{1}{4}$ and $2\frac{1}{4} \times 3\frac{1}{4}$. Both these sizes are equally practical but many workers will prefer the

than a few plates in holders. For small camera work, the fixed focus type has many things to recommend it—the foremost being that it is always ready for use.

The pictures illustrating this article are merely suggestions of what can be done with a small pocket camera. As in the case of a larger instrument, it all depends on the man behind the lens what kind of pictures you get. A few weeks ago, a first prize was awarded by the A. P. W. to a vest pocket print—one that had been exposed in February—which goes to show they can be used all the year round if one uses a little good judgment. Once you start using one of these little pocket companions you will never want to be without it. They are little brothers of the larger instruments and are by no means meant to take their place. Each is necessary in its own field of endeavor. Many amateur photographers will soon be called to the colors, but they will still find opportunities of using a camera. A pocket camera is an ideal instrument for the soldier.

EXPOSURE METERS

By G. L. HARVEY



ONE of the most difficult features in correct Exposure in Photography is to know the variance in time required for the *different classes of subjects* you are photographing, and this difficulty is a more serious one than the ordinary amateur believes.

The amateur attempts to take a picture of most anything he sees, his range of subjects often being far greater than that of many professionals; yet few would consider that a pic-

ture of a "Beach Group" or a picture of a "Building Part in Shade" would require very great difference in time of Exposure, and the beginner would probably shoot away his Films at $1/25$ or $1/50$ second, with some guessed-at Stop, and expect to have good pictures in both instances.

The fact of the matter is it requires from 150 to 180 times greater exposure for the different classes of outdoor subjects which you may photograph on the same day, with the same light and same Plate; the change in time being simply due to the fact that a different amount of light is reflected back into the Camera from the object.

A good Meter should instantly call attention to this all important feature, and at the same time it should give the exposures for any Stop that might be desired to use, without making calculations. As an example of likely errors—one man was told that an exposure of $1/25$ of a second should be increased three times when using a Color Screen. He immediately said the exposure should then be $1/75$ second. If he thought longer he would, no doubt, have given a different answer, but many amateurs are in a great hurry to snap pictures and have no time for much thinking. No one knows the need of the great hurry, but it is something like Buck fever, no doubt.

Another class of amateurs, who have progressed a little further, think that if they only knew the comparative Plate speeds of the different Plates they were using, they would then have the final answer on Exposure, but the range of Plate or Film speeds which are used by the ordinary amateur very rarely differ more than from 1 to 4 times for Plates and not over twice for Films. Yet, as stated above, the time for various classes of subjects which they photograph may vary 150 to 180 times for exterior work alone.

It is obvious, therefore, that the Plate speed is of very much lesser importance than knowing how to allow for the amount of light the object reflects.

Another important factor in change in exposures is the geographical location in which you are taking photographs. A man will go from New York probably into Southern Canada, and the light will look just as strong as it did in New York, but this is not so, photographically, and he will be bitterly disappointed in his pictures in Canada, if he takes them at the same speed which he did in New York. The changes of speed required, with Bright Sun Light—all other things being equal

**Pass The Syrup**

The Editor writes us from Camp as follows: We sleep in blankets on cots with mattresses and pillows, eat what the good Lord and the Q. M. provide, and are thankful. Well, that's better than sleeping on the ground and getting next to nothing at all to eat. Maybe some reader would like to drop him a card. His address is Ohio Division, Hq. Citizens Training Camp, Fort Benjamin Harrison, Indiana.

The Boston Young Men's Christian Union Camera Club, of 48 Boylston St., Boston, Mass., has made up a collection of 42 prints taken from recent exhibitions and is desirous of making interchanges with other camera clubs. Write them direct.

A very successful exhibition of pictorial photography was held at the Cleveland School of Art from May 6th to 20th, under the direction of Carle Semon, Walter Heller and F. C. Baker.

An exhibition of forty photographs by the members of the Buffalo Camera Club was on show at the rooms of the Camera Club of the Boston Young Men's Christian Union, 48 Boylston street. This is the first of a series of exchange exhibitions which the Union Camera Club is arranging with other similar clubs throughout the country. The Buffalo photographers represented in the collection are: F. McL. Alexander, Philip McC. Armstrong, Helen E. Cary, Harold DuCharme, Frank E. Erin, Dr. O. E. Fischer, Mrs. Irma H. Fischer, O. H. Linstead, W. A. Linstead, Joseph Mixsell, C. Hayward Murphy, Edmond J. Schaefer, P. V. Wendler, and W. A. Wood.

“Preparedness”

By K. D. Ganaway
1224 Lake Shore Drive
Chicago, Ill.

Class A. Weekly Comp.
Data: 4x5 R. B. T.
Graflex B.; and L. Zeiss
Tessar Ie; portrait film;
F.7.7; 1/65 sec.; 11 a. m.;
July; Metol-Hydro; Azo
“E” Hard; prints 10c.



—from the Equator to the North countries, is about 15 times, and the traveler who is not thoroughly conversant with how much to allow for the changes of location will often return home with a miserable lot of pictures and wondering what is the matter with his Camera. The fact is that the Camera is just as good in one place as it is in another.

It does seem that the change in geographical location, which will change your Exposure, say 15 times, is of far greater importance than the Plate speed, which rarely varies, as stated above, not over from twice to possibly eight times for the extreme latitude of Plate speeds which the amateur might use, and Films which do not vary over twice in their speed, from the slowest make to the fastest.

Many Camera users put their Cameras away in the Winter time, as it apparently does not work as well in Winter as it does in Summer. Just as good pictures can be taken in the Winter as in Summer, if you know the correct exposure. Professionals do not give up photography in Winter, and the amateur has the same Plates and Films to work with that are offered to the professionals, and he will find the formulas for developing the various Plates printed in each box, and it is rarely the case that any professional has any better developer for the Plate than that which is advocated by the Plate manufacturer. At least you may be sure that you will make very fine Plates by using the developer the manufacturer suggests.

Most amateur pictures are under-exposed. Most of them lack detail, because they will not use a tripod and a small Stop, but prefer to

take a picture in the shortest possible time. In photographing any object which is standing still, a tripod should be used and a small Stop, if you care to have a good depth of field, which is commonly known as depth of focus, and good, sharp detail. Do you see professional photographers working without a tripod? I would prefer a fair Lens and a tripod to a fine Lens without a tripod for still subjects. It costs no more to make a good photograph than it does to make a poor one.

Some Meters attempt to measure the light by sensitized paper, or by looking through glasses of various tints, but as a rule they give the exposure for one class of subjects only, and it is generally necessary to refer to some book or pamphlet in order to find the exposure for the various classes of subjects.

Other Meters will give the exposure for but one Stop and the operator is requested to figure out the exposure for the remaining Stops. All this is quite confusing. While you may know that the ratio between Stop f 4.5 and Stop f 8 is as 1.2 is to 4, and you know that an exposure at f 8 is 1/60 second, many would have quite a little difficulty in figuring the correct exposure for an f 4.5 Stop.

Some Meters lay great stress on the hours of the day. This is not as important as it may appear on the surface, as if it is a dull, cloudy day at 1 o'clock in the afternoon, you should bear that in mind and not the fact that the Meter has some feature on it which is to be set for 1 o'clock. I never saw a professional photographer take out his watch to see the time of day to make a picture. He simply notices the light—bright sun, bright cloudy, or whatever it happens to be; but he does know the reflect-

ing power of the object which he is photographing, and he knows his *classification of subjects*, which years of experience have taught him is essential in the making of a good Plate or Film.

It must not be assumed that the Plate speed is an unimportant question, as the Plate speed is the fundamental principle from which you must base your exposure, but I believe it is clearly pointed out above that its importance is secondary to the geographical location and of far less importance than the class of subjects.

In photographing very contrasty subjects, which contain very white and very dark subjects in the same photograph, it is impossible to expose correctly for both subjects, and a happy medium must be taken.

Many workers, as a rule, intensify a portion of the Plate and reduce other portions, in order to have a Plate print correctly, or when printing in a frame, will juggle the printing in order to even up the denser and lighter portions of the Plate; but a good Meter will give you the best average exposure for most of these contrasty subjects and give you a negative of good printing quality.

In selecting the particular class of subject you are photographing, you should always photograph the nearest or darkest of the list of subjects given; thus, if you have a Meter which gives one exposure for "Distant Ships," another one for "Near Boats," and still another section for "Dock Scenes," if you were taking a picture in which "Docks," "Near Boats" and "Distant Ships" were all in one picture, you would use the paragraph on the Meter calling for "Dock Scenes."

Again, "White Buildings," "Dark Buildings," "Buildings Part in Shade." If you had all three of these subjects in one photograph, the picture should be exposed as a "Building Part in Shade."

By professionals in the above article is meant professional photographers and advanced workers in photography.

There is an Exposure Meter that gives the exposure for any Plate or Film speed, any geographical location, for all classes of subjects, and for any Stop, taking care of the changes in the light conditions, and the various seasons of the year, without requiring mathematical calculations on your part.

DEVELOPING A NUMBER OF NEGATIVES AT ONCE



APPLIANCES can be purchased for what is called wholesale development. There are tanks of all sizes, into which a number of plates can be slipped at once, and racks and washing tanks for the removal of the hypo. But if it is not often that anything of the sort is needed, the economical amateur will hesitate about buying anything of the kind. As far as a developing tank is concerned he may be right, for although "tank development" is sound, a tank for the purpose of carrying it out with plates is not at all a necessity, paradoxical as such a statement must seem. The washing tank with its rack is more justifiable, as it saves a good deal of labor, especially if

the rack is constructed to hold a large number of negatives.

Tank development, or rather time development, can be carried out quite well in a dish. A friend of ours uses a shallow zinc tray for the purpose, which he constructed at home with no more apparatus than a pair of old scissors and a soldering outfit. The tray measures 18 x 20 inches, and is about an inch and a half deep. It is attached to a board underneath, to give it sufficient stiffness, while inside it is provided with metal ridges about an eighth of an inch high, which space it out into twenty-four divisions each of which takes a $3\frac{1}{4} \times 4\frac{1}{4}$ plate. The metal ridges between the plates are only about an inch and a half long, so they do not make it difficult to pick up the plates; all they do is to prevent one from sliding over another. The whole lot had a coat of shellac varnish. There is a wooden lid enabling the development to be carried out in complete darkness. Fixing and washing are done in another vessel.

Such a dish for time development is preferable to a tank, as it allows the development to proceed more evenly. As is well-known, plates which are in a tank and are too near together, or to the walls of the tank, often develop in an irregular manner. In the flat tray the action is exactly the same as when a single plate is

SMILE WITH US!

She: "Did you tell that photographer you didn't want your picture taken?"

He: "Yes."

She: "What did he say?"

He: "He said he didn't blame me."



developed in a dish; the tray can be rocked, and so complete uniformity secured.

It is very important where there are a large number of negatives to be developed, mostly of subjects which we shall not be likely to be able to repeat, that nothing in the way of experimenting upon them should be done. The work should be conducted on the lines with which we are most familiar, even if that familiarity at the most is very slight. The same dark room light should be used, so that we may not be misled as to density; the usual developer at its usual concentration is also best, that there shall be no great difference to deceive us in the rate at which the images become visible.

On the other hand, it is probable that the amateur will decide to make up his developer anew for this work, so as to have the solutions at their freshest and best, and it is right to do so. But after mixing them up, and before using any of them on a batch of plates, a preliminary trial should be made, on an exposure of no consequence, to be quite sure that it is in good working order. The trial exposure should be carefully made, timing it with the meter; the developer should be mixed up accurately, its temperature taken, and the time noted which it takes to develop. If, then, the negative should prove to be a good one, and accurately developed, we have definite data for the development of the bulk. If the developer is mixed up in the same way, and used at the same temperature, the same length of time will be correct for all the plates. It is necessary, of course, that the plates used for the trial should be of the same make as the others if it is one of the same batch, so much the better.

When a number of plates are developed at the same time in this way, it will often be found that they are developed more quickly than they are fixed, and there is a great temptation to reduce the time in the fixing bath as much as possible. This is a very great mistake, as insufficient fixing is fatal to the negative. Opinions differ about the necessity for thorough washing; it has even been said that negatives have been intentionally left impregnated with hypo, and have not visibly altered, but a negative that has not been properly fixed soon develops a ruinous and quite incurable stain. Twice as long as it takes for the white appearance to vanish from the back should be taken as the very minimum time required to make quite certain that the negative is fully fixed, and in order to know what this is, the negatives should be looked at from time to time while in the hypo.

To avoid delays, therefore, one should be prepared with fixing accommodation for at least twice as many plates as are developed at once. A grooved earthenware vessel makes a good fixing bath where a number of negatives are to



"The Water Sprite"

By J. P. Polk, 1500 Beechwood Ave
Nashville, Tenn.

Bi-Weekly Competition

Data: Premoette No. 1A Special; Zeiss Kodak;
Film pack; F 6.3; 1/25 sec; noon; Aug.; Pyro tank
developed; Enlarged on Eastman Rough Bromide
and redeveloped.

be fixed at once. Two plates back to back can generally be fitted into each pair of grooves. In this, and in similar ways, we can deal with a great many negatives at once, with a great saving of time and labor, and with the certainty that they will be in no way inferior to the results that would have been got if each had been separately put through.

DOING YOUR "BIT"

You can do your "bit" by helping the present editor of the *Amateur* during the absence of the real editor. Enter the competitions, answer the questions, send in articles or little notes or ideas. In other words, help us to edit this paper.

BLISTERS ON BROMIDE PRINTS:
CAUSES AND CURES

A number of cases of blisters on bromide prints and enlargements have been brought to our notice lately, with queries as to cause and cure. Contributing causes are many in number. For example, (1) Kinks, cracks, creases, folds, etc., in the paper. (2) Handling the print with hot finger tips. (3) Sudden change of temperature; e.g., putting the print into tepid water after it has been in icy cold water, or vice versa. (4) Change of density of baths; e.g., passing a print from a strong (dense) hypo fixing bath straight into plain washing water. (Note, dissolving hypo in water lowers the temperature from ten to twenty degrees. Therefore tepid-warm water should be used for making up a fixing bath which it is desired to use at once). (5) The use of soft water. (6) The use of water in which much air has been dissolved. (7) Washing under a spray delivering water with considerable force. (8) The use of too much alkali (especially caustic alkali) in the developer. (9) The use of too strong sulphide solution, or the use of stale (decomposed) sulphide in the sulphide toning process. (10) A strongly acid bleaching bath.

Pricking the paper back of the big blisters, gently pressing out the air, and then contracting the gelatine with wood alcohol is a good plan to adopt. This procedure is not applicable in the case of a crop of small blisters. These may usually, but not always, be reduced by mopping the print with a piece of cotton dipped in equal parts of water and wood alcohol, and then in wood alcohol only.

If the print shows blisters in the fixing bath they will probably grow bigger if transferred straight to plain water. To prevent this, pass the print into a solution of table salt the same strength or proportion as the hypo and water bath, and then dilute this salt bath slowly by adding a little water at a time and rocking the dish. Another suggestion is to use two fixing baths—i.e., ten minutes in ten per cent hypo, and then ten minutes in five per cent hypo—and then two per cent salt bath. Another method is to clean a sheet of ground glass with soap and water, dry it, dust it with powdered salt or Fench chalk, lightly brush this off the ground side lay face down the wet blistered print on to the ground side, lightly squeegee, allow to dry thoroughly, and then strip. This is good for large prints and small blisters.

Where the trouble comes after bleaching and sulphide toning, perhaps the best preventive is the simplest of all; viz, to let the print dry thoroughly after washing and before sulphiding.

For hardening before fixing, the following have been advocated: (1) Water 20 oz., common alum $\frac{1}{2}$ oz. (2) Water 10 oz., chrome alum, 1 drm. (3) Water 10 oz., formalin 1 drm.

For combined fixing and hardening: (1) Dissolve in the following order in water 10 oz.: Hypo 2 oz., soda sulphite $\frac{1}{4}$ oz., alum 1 drm., acetic acid $1\frac{1}{2}$ drm. (2) In 5 oz. water dissolve 1 oz. soda sulphite, then add slowly 1 drm. sulphuric acid; add 20 oz. water, then $\frac{1}{2}$ lb. hypo; when this is dissolved, add $\frac{1}{2}$ oz. chrome alum dissolved in 5 oz. water. (3) Water 20 oz., hypo 2 oz., soda bisulphite $\frac{1}{4}$ oz., chrome alum 1 drm.

ALUM AND HYPO

If a few drops of almost any acid are added to a solution of hypo, the result is the formation of a whitish sediment, owing to the fact that the acid decomposes the hypo. Salts of an acid character have a similar effect; and amongst these is ordinary alum. Alum added to hypo gradually forms a dense precipitate, as those who use the hypo-alum toning bath know; and if the gelatine film of a negative or print contains hypo when it is placed in alum, or contains alum when it is placed in hypo, this same process may take place, and the deposit be formed in the film of gelatine itself, where it will give rise to a stain which nothing can remove. It is important therefore to give negatives or prints a good washing between an alum and a hypo bath. The necessity for this is often overlooked.

RAPID SOLUTION

When crystals are placed in water and allowed to lie at the bottom undisturbed they dissolve very slowly. The solution which they form remains round about them and prevents a fresh supply of water from getting to them to continue the dissolving. This is partly remedied by shaking or stirring; but the best way of all is to place the substance to be dissolved in a little bag of muslin, or similar open material, and suspend it just below the top of the liquid. As soon as any dissolves, the solution, being heavier than water, sinks to the bottom of the vessel, and fresh water takes its place; so that solution takes place rapidly without any attention. If the experiment is tried in a glass vessel with some chemical giving a dense solution, as, for example, hypo, the solution can be seen descending from the bag containing the crystals.



"Barbara"

By G. W. French, Monson, Mass.

Bi-Weekly Competition

Data: Kodak 3A R. R.; U. S. 4; Quick bulb;
July; 10 A. M.; E. K. film; Pyro; Enlarged on
Artura C. Black.

ANSWER TO QUESTION 169

How May One Best Copy a Print When the Negative is Lost?



COPIING prints successfully is at times—even for the professional—one of the most trying undertakings in photography. What chance, then, has the amateur with practically no equipment? Without raising the question why he should abandon the interesting pastime of *creating* pictures for the more tedious job of *reproducing* pictures, it is my opinion, that with all but serious and persistent amateurs the result of their endeavors in this branch of photography will find its way into the waste basket. A glance into the workshop of the commercial photographer, who does this sort of thing every day with proper equipment and adequate skill, would be the best an-

swer to question 169: How to reproduce a print when the negative is lost?

A print is reproduced when there is a reason for its duplication, as, for instance, for newspaper use—mostly on a larger scale—when alterations or ornamental additions are proposed and the original must not be disturbed. The amateur has an equally important reason. His best girl might be involved, or his prize-winning masterpiece and the negative is smashed or hopelessly stained from lack of fixing and washing. So let us help him anyhow.

Start your work with the print in question. If it is perfectly flat like the leaf of a book, well and good. If it is wavy or creased, soak it once more in water and dry it flat or mount it. If a glossy print with faint scratch-like marks from a defective ferrotype plate, rub in vaseline and polish off all but a trace. It works wonders. If on very rough lustre paper smear it over with thick glycerine, squeegee on a clean glassplate and reproduce wet in optical contact with the glass. It kills the grain of the paper. Next pin the print flat onto a board or, if you prefer, tack a scratchless glassplate over it or lay it in a larger printing frame, provided with a plate-glass.

In all likelihood you will choose to do the copying indoors. Move a strong table in such a position near a window that the light from it strikes the table from the side and a little from the front. Stand your copyboard or printing frame close to the edge of the table and support it by any means at your disposition. Be sure that the board is square to the table top and table edge. I presume that your camera is fitted with a groundglass. It must be for this kind of work. It also must have a long bellows extension if you want to copy to full scale—twice the equivalent focal length of the lens. Set the camera alongside the table edge and use the latter as a guide in moving the camera to and fro when focussing. Focussing and arranging the copy nicely on the ground glass is tedious work. Don't bring the copy into the middle of your ground-glass by twisting the camera sideways. Always keep it flush with the table edge, but slide your copyboard sideways or raise it in a plane at right angles to table top and edge. If necessary support the camera by a flat box, book or the like, but be sure to keep it parallel with table edge.

Fine focussing should not be done with full opening of the lens. Better stop down to F/11. Even some of the highest grade of Copying Anastigmats show traces of spherical aberration. Focus on some sharp part of the copy and if you are in the least uncertain as to the proper focus, fasten a piece of very fine clear print over the copy and focus on this. The image *must* be sharp over the whole ground-



Copyright by Harris-Ewing Studio
Washington, D. C.

A splendid piece of child portraiture, almost a genre.

glass and any fuzziness on one side or another proves conclusively that copy and groundglass are not parallel to each other. Neither would a negative made under such conditions be angle correct.

Next hunt for reflections. They are at times extremely bothersome. Move your table carefully around to avoid them. Front light produces them, sidelight kills them. But side light produces the grain of the paper and causes uneven lighting of the copy. To counteract this bad effect erect a small reflecting screen—a sheet of white paper—on the shadow side of the copy at a little distance, which reflects the light from the window back onto the copy. Avoid superfluous light in that part of the room behind the camera and remove any very shiny objects if your copy is mounted behind glass or in itself has a high gloss surface.

Stop down to F/16 or F/22 or more, and expose. The reason for this considerable stopping down is not at first apparent as the lens in all probability will cover the plate fully at a much larger opening. But don't forget that our entire copying outfit is extremely primitive rather than a precision apparatus. To compensate any considerable lack of squareness of the different planes is the reason for stopping down.

Don't use a fast plate, neither a process plate as sometimes erroneously recommended. Slow or medium landscape plates are best suited.

Exposure? If you have a Wynn or Bee meter, try it. If you are inclined, expose a plate in sections (I know you won't) by pulling the slide out in stages. Nobody can guide you in this respect. If you ever made a portrait in the same room under similar light conditions on a fast plate and you exposed, say, 4 seconds at F/8, then remember that you use now a plate of perhaps one-half or third the speed and you stopped down to F/22. That should bring your exposure to somewhere over a minute. But please don't expose a minute against your own judgment and blame me for the failure.

Develop as you are used to. There is no secret in developing beyond what every primer teaches you. If your copy was soft and grey, expose reasonably short, use plenty of bromide and develop long. Contrary, give a very full exposure, dilute developer, cut out the bromide and develop short. Don't rely on intensification or reduction. If you don't get proper gradation by mere development something is somewhere fundamentally wrong and it is up to you to locate the trouble.

So far I had in mind a copy in black and white. But suppose the print was sulphide toned or a red P.O.P.? What then? If you proceed as before you will be disappointed in spite of correct exposure and development. You have heard that the ordinary plate is color blind. It is just sensitive to the blue end of the spectrum. If it is blind to green, yellow and red how can it record details in these colors? The tone of a sulphided bromide is in reality a degraded orange, a color to which the ordinary dry plate is totally insensitive. What it will record is only the degradation, that is its admixture of black (or should I say white?) and hence the faulty gradation of the negative. The obvious remedy is a color corrected plate of the ortho—or panchromatic type, with a suitable ray filter. But here I stop short, before what is supposed to be a plain answer for a plain question becomes a treatise.—Arthur Fruwirth, 54 Hart St., Brooklyn, N. Y.

TITLE COMPETITION

(Print on this page)

49

We will give \$1.00 in materials for the most suitable title to this print received within two weeks from date of issue. Write number of print, title, your name and address on one side of sheet. Nothing else. Winning title, with picture, will appear in issue dated five weeks later. Address all replies to Title Editor.



"Local Manipulation"



GREAT many readers seem to have been more or less bothered at times to know what to photograph. They have run out of subjects. This is a most distressing state of affairs, as I well know, having been there myself, but it is not necessarily a sign of softening of the brain, or of exhaustion of the possibilities of one's hobby. The condition is entirely curable, even in flagrant cases.

I well remember one occasion when, having scraped and saved for months to put myself in possession of a certain new camera, I suddenly became appalled by the realization that there apparently wasn't anything more I wanted to photograph. Every subject that occurred to me caused a wave of ennui to sweep up and down my spine, and there was nothing for it but to put the camera away on the shelf and betake myself sadly to the club for a game of cowboy pool.

"The worldly hope men set their hearts upon Turns ashes—or it prospers—and anon, Like snow upon the desert's dusty face, Lighting a little hour or two, is gone."

This little episode, which others can easily parallel, is only another illustration of the truth that amateur photography is really an epitome of life. All the emotions of success and failure and empty triumph are experienced by the amateur, along with a good many other emotions which it is perhaps just as well not to say too much about. If you follow the lead of the camera, you get life in a nutshell, with a nutcracker thrown in to help along.

However, I lived through the experience above referred to and am still taking pictures. It was only a temporary mood, and the glory of the lord had not departed from me, as I had for the moment feared.

Now what I want to say, if I can ever get around to it, is this: When you find that desolate feeling coming over you, the feeling that you can't think of anything attractive left to photograph, an excellent practice is to set about making pictures of things you do not like. I can give a few illustrations out of my own experience, which has been rich and varied. Once upon a time, in the blush of youth when I was still romantic, I had a penchant for photographing old houses that looked picturesque and quaint. However, after living for some years in an old house that looked pic-

turesque and quaint, this penchant gradually wore off. Nowadays when I gaze at an old house that looks picturesque and quaint I at once think of stuffy rooms with low ceilings that don't let out my tobacco smoke, of faulty plumbing, of lack of electric lights, of chipped paint, of uneven floors, and of a variety of other things suggestive of antiquity and rank discomfort. It is all very unfortunate in a way, because I was really born to be a poet, and now all the poetry has been knocked out of me. Be that as it may, it is certain that the photographing of old houses hasn't for me the fascination it once held, and of course no one would care about photographing the ordinary run of respectable houses of the present time, with their Queen Ann fronts and Mary Ann backs. Accordingly, having had all this profound experience in regard to houses, I tackle the subject photographically from the pessimistic instead of the optimistic point of view, and derive a great deal of vicious delight in making pictures of houses I wouldn't like to live in. My collection of photographic studies along this line is considerable already, and it is steadily growing. When you get interested in a thing like this, you become astounded to see what awful habitations some people are happy if not eager to live in.

However, I shouldn't take up all the space with one illustration. The point is that the times when we feel as if there were nothing we liked well enough to want to photograph it are the very times when our dislike of various things is keenest, and here, accordingly, is our opportunity. We can just let these devilish dislikes sweep right over us and go to work making pictures to laugh at for the antipathies they arouse. Try it.

One way to be an optimist is to get as much fun as possible out of being a pessimist.

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FLARE SPOTS AND HOW TO DETECT THEM

Many a photographer in buying a lens examines it critically for definition right up to the corners of the plate, and beyond if it is to be used with a rising front, but he does not think of testing it to see if it has a flare spot. He may note that there is no sign of such a defect when the lens is used on the usual trial subject; but it would be a very bad lens indeed if it showed one then. Consequently, when he comes to use it on the type of subject which will show a flare spot if one exists, he finds that his lens is suffering from it, although he may have used the instrument for years without suspecting its latent weakness. To ascertain if one is present, the lens should be focussed on a lighted lamp in a room otherwise dark, or on some small window forming an intense high light. The ground-glass is then

critically examined, the camera being twisted about the while, to see if, when the image of the light is in one corner of the screen, there is a ghost image of it anywhere else. The experiment may be tried with the lamp at different distances, focussing for each; but it is not fair to the lens to have it very near, say within three or four yards, since flare is not altogether unavoidable, and one which was only noticed in such circumstances as that would be a good rather than a bad feature, since it has been arranged to become visible only in the circumstances in which it would be least likely to do any harm.



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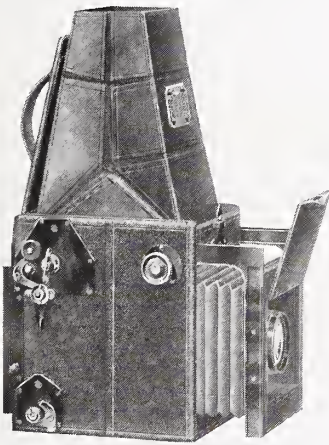


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2. Weekly Competitions close each Wednesday, and photographs are entered in which-ever Weekly Competition is open at the time of receipt. Bi-Weekly Competitions close the second and fourth Wednesday of each month.

3. Prizes are awarded according to the rating of the print. 100% is the highest mark obtainable, and the rating is based as follows: Subject matter 20; Composition 20; Lighting or Pictorial Quality 20; Chemical Quality 20; Finish 20; Total 100. Detailed rating marks are given with all prize winning prints published. Signed rating cards are sent to all prize winners; but not to other competitors unless requested when print is submitted.

4. No photographs previously published in any magazine or used as samples to advertise any special product shall be eligible for any competition.

5. Each photograph must be entirely the work of the competitor as regards selection, arrangement of the subject, exposure and mounting of the print.

6. The title; name and address of the competitor; name of competition (Weekly or Bi-Weekly); and the following data must appear on the back of each print: Camera, lens, plate, stop used; exposure; time of day and year; developer; paper; price for which you will furnish other amateurs duplicate unmounted prints; in the above order.

7. Photographs need not be mounted but mounted prints are rated higher under "Finish". They may be of any size, and on any medium except blue print, but must not be framed or colored. Any number of prints may be submitted, but rating cards on only two prints may be requested with an entry.

8. If photographs are to be returned they must be accompanied with a stamped addressed envelope or label (not loose stamps). The publishers accept no responsibility.

9. The prize winning photographs will remain the property of the A. P. W., and the publishers reserve the right to reproduce any or all prints submitted.

10. Awards may be increased or withheld at the absolute decision of the judges, and the competitor by submitting a print agrees to abide by the decision of the judges.

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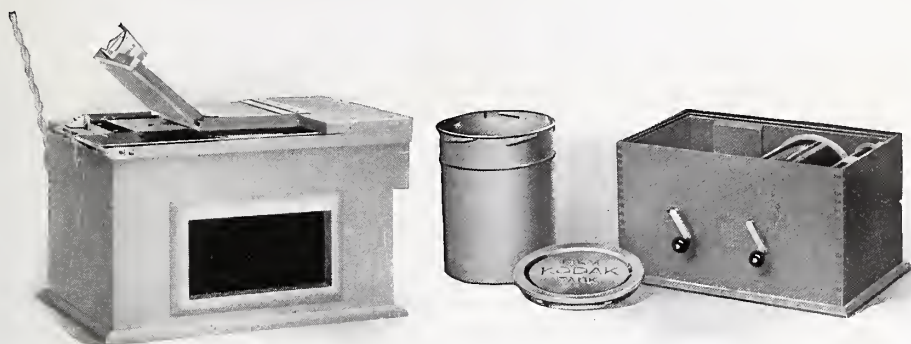
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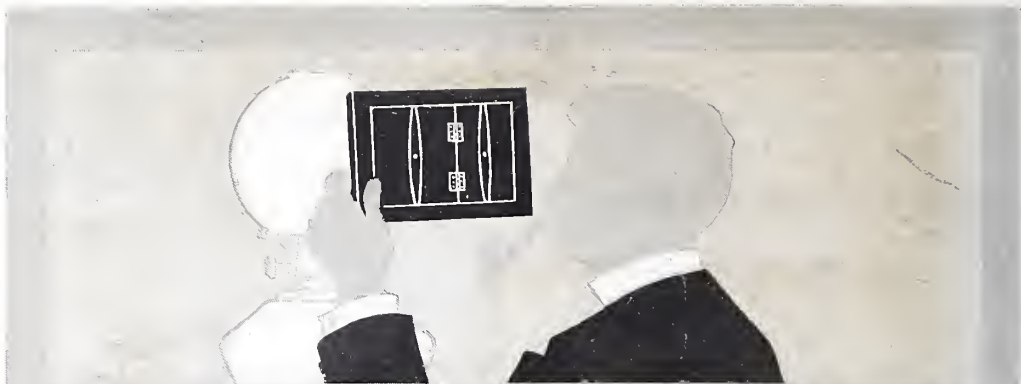
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